CHAPTER 2

A Conceptual Model for the Examination of Stress Dynamics

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Introduction

The stress concept has proved to be an effective stimulus to reconsideration and redefinition of styles and strategies of coping as well as of life itself. The history of the stress concept, some of which has been presented in Chapter 1, has been an interesting one, as various disciplines found a way to relate to others and make some contribution to its development. As noted earlier, there have been many efforts at sketching or making a model of the stress concept in the tradition of Selye, who had stated “You must first have a concept derived from observation and symbolized by a name before you can even try to delimit it more precisely by a definition” (Selye, 1956, p. 61).

One step in that process is the making of a model that attempts to place all the pieces on the table before defining. Models tend to be simplistic abstractions with characteristic enhancement of the section representing the discipline of the author. This feature allows or assures enough space to include all that he or she believes will derive from that discipline (or specialty), but usually pays little homage to others, even in

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an avowed interdisciplinary representation. Over the years, then, there has been a steady output of such limited aspects of the total picture with block diagrams, flow diagrams, systems analyses, and verbal rationalizations for utilization of the stress concept. Most block diagrams included various forms of "black boxes," in which vital and intricate functions were labeled cognition or coping at a point where something was supposed to occur. The delineation of activities associated with cognition or coping was left to others. In turn, new models appeared with adequate representation of those functions but, in turn, producing other black boxes that, for example, indicated where something of a physiological nature was to occur or where some social influence might make a difference. Some writers have recognized the difficulties involved in representing the total system by stating that the concept itself was no longer of use, although it might have served some heuristic function in the past.

Even with this discouraging picture before us, we would like to sketch a brief picture of the world of stress reaction systems with the objective of facilitating their study and understanding. The emphasis is on the dynamics of the interactions between the individual and his environment—to explain what is happening before a stressor is encountered, during the period of response, and—following stress experience—how the individual has been altered, for better or worse, to deal with stressors yet to come.

Parallel Systems

Today, there is general acceptance of three parallel systems—physiological, psychological, and social—that function to maintain a person and provide whatever means there are for dealing with stressors over his or her lifetime. Each system, in turn, has subsystems. In the physiological system, for example, one can identify circulation, respiration, glandular, nervous, and digestive subsystems, all of which depend on biochemical and neurological functions for their activation and interactions. Our primary evidence of the efficiency of these systems and functions is in the state of health, work performed, and/or waste products. We must also be aware of the dynamic nature of such systems, their development, the underlying rhythms, and the ebb and flow of adjustments in their normal variations, from circadian to life cycles.

The psychological system also has subsystems of functions and traits, among which are perception, memory, emotion, and an ill-defined category of "needs." These, too, can develop and exhibit periodicities, many of which are associated with, if not determined by, underlying rhythms of physiological functions. Here we may recognize the psychological